

Abstract

# Abstract of The Disclosure

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5 The present invention concerns a method for generating a network, in particular a telecommunications, water, long-distance heat supply, or power network, the network connecting all users (3) to a main distribution node (7) depending on the existing or definable local needs and requirements (4) of the individual users (3), characterized by the following process steps:

- 10 I) Generation of a graph (G) composed of edges (14) and nodes (15), the graph (G) including all technically feasible and/or definable transmission paths (5) of the network, and the length and direction of the edges (14) being derived from the real topography of the street segments and definable cable paths (5) of the territory (1) to be supplied by the network, and the nodes (15) forming the intersections between the edges (14) or streets and/or cable paths (3);
- 15 II) Assignment of the users (3) to the graph (G) in such a way that each user (3) is connected to the closest edge (14) or the closest node (15) of the graph (G) by an additional service edge (14);
- 20 III) Creation of a tree structure (Ba) by removing unnecessary edges (14) from the graph (G) in such a way that the service edges (16), edges (14), and nodes (15) of the tree structure (Ba) form only one connection between the main distribution node (7) and each user (3); and
- 25 IV) Determination of the load of the edges (14) in the tree structure (Ba), depending on the needs and requirements (4) of the users (3).
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